Matrix Protein 2 (M) Influenza A Virus Recombinant Protein

PRODUCT OVERVIEW

Product Name	Matrix protein 2 (M), Recombinant Protein
Full Product Name	Recombinant Influenza A virus Matrix protein 2 (M)
Product Gene Name	M recombinant protein
Product Synonym Names	Recombinant Matrix protein 2 (M); Matrix protein 2; Proton channel protein M2
Sequence	MSLLTEVETL TRNGWGCRCS DSSDPLVVAA SIIGILHLIL WILDRLFFKC IYRRFKYGLK RGPSTEGVPE SMREEYRQEQ QNAVDVDDGH FVNIELE
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degree C. For extended storage, store at -20 or -80 degree C.
Molecular Weight	11,177 Da
Sequence Positions	1-97
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for O70632
Species	Influenza A virus (strain A/Hong Kong/156/1997 H5N1 genotype Gs/Gd)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for M recombinant protein	MBS1098125 is a recombinant protein targeting M. Also known as Recombinant Influenza A virus Matrix protein 2 (M). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of M recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for M. It may not necessarily be applicable to this product.

NCBI GI #	54036546
NCBI Accession #	O70632.1
UniProt Primary Accession #	O70632
UniProt Secondary Accession #	Q77XR7
NCBI Official Full Name	Matrix protein 2
UniProt Protein Name	Matrix protein 2
UniProt Synonym Protein Names	Proton channel protein M2

UniProt Gene Name	M
UniProt Entry Name	M2_I97A1
UniProt Comments for M	Function: Forms a proton-selective ion channel that is necessary for the efficient release of the viral genome during virus entry. After attaching to the cell surface, the virion enters the cell by endocytosis. Acidification of the endosome triggers M2 ion channel activity. The influx of protons into virion interior is believed to disrupt interactions between the viral ribonucleoprotein (RNP), matrix protein 1 (M1), and lipid bilayers, thereby freeing the viral genome from interaction with viral proteins and enabling RNA segments to migrate to the host cell nucleus, where influenza virus RNA transcription and replication occur. Also plays a role in viral proteins secretory pathway. Elevates the intravesicular pH of normally acidic compartments, such as trans-Golgi network, preventing newly formed hemagglutinin from premature switching to the fusion-active conformation. Enzyme regulation: The M2 protein from most influenza A strains is inhibited by amantadine and rimantadine, resulting in viral uncoating incapacity. Emergence of amantadine-resistant variants is usually rapid. Subunit structure: Homotetramer; composed of two disulfide-linked dimers held together by non-covalent interactions. May interact with matrix protein 1 By similarity. Subcellular location: Virion membrane By similarity. Host apical cell membrane; Single-pass type III membrane protein By similarity. Note: Abundantly expressed at the apical plasma membrane in infected polarized epithelial cells, in close proximity to budding and assembled virions. Minor component of virions (only 16-20 molecules/virion) By similarity. Domain: Cytoplasmic tail plays an important role in virion assembly and morphogenesis By similarity. Miscellaneous: When the channel is activated, imidazole moities of His-37 probably become bi-protonated. Sequence similarities: Belongs to the influenza viruses matrix protein M2 family.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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